Thailand: Wireless Communication

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Summary

With full support from the government, the future of the ICT sector in Thailand is bright. According to the National ICT Master Plan (2007-2011), the ICT market will focus on four main pillars: ICT infrastructure, training, research and development, and ICT management.

In 2008, cellular users are expected to increase to 63 million or 100% of the total population. The overall internet penetration rate is expected to reach 15% with a market worth more than $303 million. Broadband penetration is expected to grow to 5-10 million users by 2009.

Wireless access demand is expected to rise over the next few years, fuelled by changing lifestyles that necessitate high-speed data communication. Advanced wireless technology provides greater convenience, reducing the need for work-related moves and saving travel time. Technologies such as wireless broadband internet enable users to access the internet at home, over mobile phones, or through laptops and PDAs.

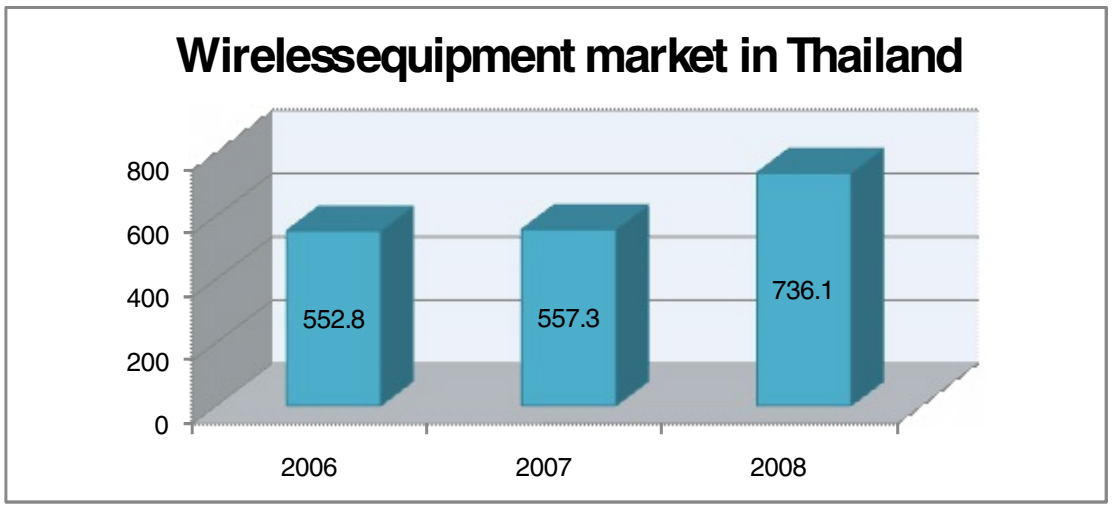
Thailand's investment in wireless telecommunication network development is estimated to reach $2 billion in 2008. Investment will be used mainly to upgrade systems, and to expand and enhance networks to cope with demand from cellular subscribers. The expansion will include installation of new base transceiver stations, radio base stations, supporting facilities, switching equipment and building a 3G network.

Market Demand

The current market for information technology products and services was projected to reach $18 billion in 2008, representing 13.1% growth over the year 2007. Telecommunications accounted for 72% of the total ICT market in Thailand, followed by computer hardware, computer software, and services, respectively, according to the Thailand Information and Communication Technology Market Survey 2007.

In Thailand, wireless technology—categorized into Wireless Broadband Access and Cellular Wireless communication including Third Generation Wireless Network (3G)—provides greater convenience, reducing the need for work-related moves and saving travel time. Technologies such as wireless broadband internet enable users to access the internet at home, over mobile phones, or through laptops and PDAs.

Even though the current hike in oil prices and the uncertain political situation have affected Thailand's economy, the impact of these macroeconomic factors on the telecom market will be lessened by the influx of new technologies, including development of network technologies such as 3G, Wi-Max, Wi-Fi. These technologies can enhance the efficiency of the existing wireless network, allowing greater service coverage and bandwidth in the wireless communication market.



According to the Thailand Information and Communication Technology Market Survey 2007 conducted by the National Electronics and Computer Technology Center (NECTEC), the wireless equipment market grew by 4.4% in 2007 and is expected to increase considerably in 2008 at a 27.5% growth rate, amounting to $736.1 million. Such a rapid growth results from investment in network expansion and government spending in telecommunication projects such as 3G and Wi-Max schemes. These are vital factors that will generate local demand for network use in the future, as well as the main driving forces attracting investment in ICT network infrastructures in the Thai market. Therefore, competition in the data communication market, especially in wireless equipment, is expected to become more intense in the future.

Thailand has a mature 2G market with 56.2 million subscribers, or 88.3% of the population. The figure is expected to reach 100% by the end of 2008. According to the Thailand Information and Communication Technology Market Survey 2007, the mobile voice service market was worth $4,795.1 million in 2007, accounting for 85.4% of the voice communication market. The market is expected to grow despite the fact that the number of mobile service users has almost reached its maximum capacity. The key factor that has driven market growth is an increase in the number of pre-paid service users. The customer base in provincial areas and the number of customers with more than one number have increased steadily. As a result, it is estimated that in 2008 the number of users will rise by approximately 8-9 million. The price war is expected to slow down. However, mobile service providers are likely to compete against one another in terms of network coverage as well as in the provision of value-added services.

3G technology is expected to become a new stream of profit for operators in the Thai cellular communication market. Insiders believe that 3G technologies will enable network operators to offer users a wide range of advanced services while achieving greater network capacity through improved efficiency. Services include wide-area wireless voice telephony and broadband wireless data in mobile environments.
The introduction of HSPA (High-Speed Packet Access) is an upgrade to 3G networks that uses the W-CDMA air interface. In addition, HSPA technology is intended to greatly improve the availability of broadband services in Thailand, which only 2.2% of households enjoy currently. In addition, HSPA service provides speeds of 7,200 kilobits per second, compared with 160 kilobits from GPRS and Edge technologies. With such high-speed capacity, telecom operators can provide high-speed internet, video calls, video clips and streaming, full song downloads and music video over mobile phones.

At the time of writing 3G technology was not available in Thailand. However, licenses for 3G and BWA, particularly Wi-Max, are expected to be issued to telecommunication service providers by the end of the current year (2008) or the first quarter of 2009. Currently, the National Telecommunication Commission (NTC), Thailand's independent telecom regulator, is moving ahead with drafting licensing frameworks for 3G and Wi-Max. In addition, the Ministry of Information, Communication and Technology (MICT) gave positive signals to private

cellular operators to upgrade existing networks with 3G technology. This allocation would allow service operators to move forward with Wi-Max technology.

3G Investment Plan

In Thailand, most telcos, including both state enterprises and private companies, are eager to launch 3G mobile services in order to gain competitive advantage. Telecom insiders estimated that operators wishing to roll out a nationwide 3G network would have to invest approximately $2 billion for 3G services. Below are examples of telcos' budgets for building 3G networks in the Thai market.

TOT Plc, a state telecom enterprise, plans to invest $909 million during 2008-2012 to build an extensive network of 5,200 base stations, including 2,500 stations in Bangkok at a cost of $878 million. In addition, the company expects to have 35,000 users in the first year of operation, increasing to four million by 2013. It aims to capture a 15% share of the 3G service market, with annual revenues of at least $303 million.

Advanced Info Service (AIS), the largest cellular provider in Thailand, plans to invest approximately $645 million to use the 2.1 MHz spectrum for high-speed data communication. This plan calls for new 3G base stations nationwide, focusing on Bangkok and provinces with high population density and high mobile broadband use. AIS's 3G service includes video calling, video streaming and full song and music video download.

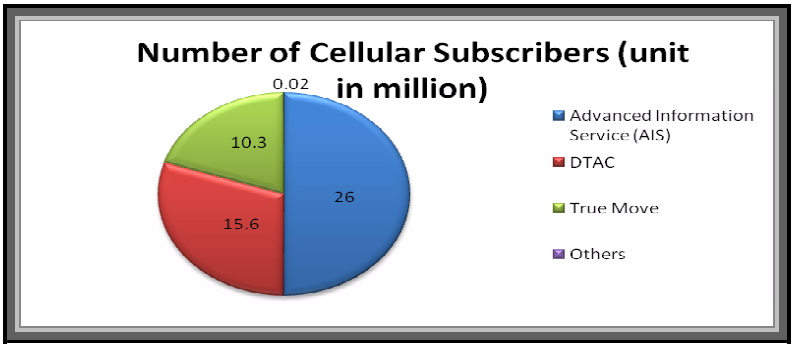
DTAC, the second-ranked mobile operator, plans to upgrade its analog 850 MHz frequency to high-speed download packet access (HSPA) under a $161 million scheme that has been divided into two phases:

1). Spending $29 million to build 800 base stations in Bangkok and other metropolitan areas.
2). Investing an additional $132 million to install 1,800 3G base stations nationwide.

Wireless Licenses

Licenses for 3G and Broadband Wireless Access (BWA), particularly Wi-Max, are expected to be issued to telecommunication service providers by the end of this year (2008) or the first quarter of 2009. Currently, the National Telecommunication Commission (NTC) is moving ahead with drafting a licensing framework for 3G and Wi-Max. In addition, the national regulator has granted 12 licenses for operators to conduct commercial testing of broadband wireless access services. The test areas are in Bangkok and other major cities. The 12 operators are:

- Advanced Information Service Public Company Limited (AIS) (http://www.ais.co.th)
- United Information Highway Co., Ltd. (http://www.uih.co.th)
- Loxley Public Company Limited (http://www.loxley.co.th)
- TT&T (http://www.ttt.co.th)
- CAT Telecom Plc, Ltd. (http://www.cattelecom.com)
- TOT Public Co., Ltd. (http://www.tot.co.th)
- Truemove Plc, Ltd. (http://www.truecorp.com)
- CS Loxinfo (http://www.csloxinfo.com)
- TransPacific Telecom Asia Co., Ltd. (http://www.transpacifictelecom.com)
- Samart Telcom Public Company Limited (http://www.samtel.com)
- Universal Communication System Co., Ltd. (http://www.ucsbkk.com)
- Triple T Broadband Co., Ltd. (http://www.jts.co.th)



Source: DTAC

Best Prospects

Thailand's investment in wireless telecommunication network development is expected to reach approximately $2 billion in 2008. Capital investment has chiefly been in the GSM network platform. Taken together, the two market leaders, AIS and DTAC, are expected to invest $0.8 billion this year to expand their networks to meet demand.

Investment will be used mainly to upgrade systems, expand and enhance networks to cope with demand from cellular subscribers. The expansion network will include installation of new base transceiver stations, radio base stations, supporting facilities, switching equipment and building a 3G network.

Key Suppliers

According to import statistics reported by the Customs Department of Thailand, the top countries supplying telecom equipment and products to Thailand are China, Korea, Japan, Taiwan, Finland, France, the United States and Germany.

Equipment entering into the market from China, Korea, and Taiwan has an advantage because of low-cost production that yields lower prices in the bidding process. Consequently, higher-end, more sophisticated technology from North American and Europe is losing market share to some Asian manufacturers.

Chinese equipment manufactures, led by Huawei Technology and ZTE, are increasing their market share in telecom networks. A project advancing with full support from the Chinese government is the CDMA mobile project developed by CAT Telecom, a state telecom enterprise. The company will be serving 3G mobile phone lines in 51 provinces using Huawei technology. A loan of $400-700 million has been provided by the Chinese government to upgrade to 3G networks in Thailand. One of the requirements of the loan, however, is for the Thai government to deploy equipment from Chinese manufacturers such as Huawei Technology and ZTE.

While U.S. brands are the most recognized products in the market, low-cost equipment is entering into the market to compete with high-end technology from North America and Europe. However, end-users prefer to use U.S. technology because of the quality and reliability delivered by the technology itself. Thailand's wireless market is growing rapidly. This is an opportunity for equipment manufactures around the world to participate in a challenging market environment like Thailand and take this opportunity to build their profiles and sales.

Market Entry

Small to medium-sized suppliers who do not intend to establish a branch office in Thailand are strongly advised to appoint a local sales representative to import their products and provide customer services. Without a local point of contact, it is difficult to provide technical service guarantees and to follow up with new projects. The lack of local representation can also present a credibility challenge with respect to product quality and reliability.

Market Issues & Obstacles

Intellectual Property Rights: Thailand has a weak track record of IPR protection, although laws and regulations to protect copyrights, trademarks and patents are in place. Enforcement is the biggest shortcoming and "gray market" mobile phones plague the market.

Government Policy: Inconsistent policies from the Thai government and bureaucratic procedures are among the major barriers to entering to telecommunications industry in Thailand. Many projects are in limbo pending implementation of the new independent regulators – the NTC and the NBC. In some cases, telecom project winners have been announced, but the project cannot be implemented because of personnel changes in the Ministry and among decision-makers.

Market: The telecom market is price-sensitive, which presents a challenge to new entrants. Brand awareness is high in the consumer product categories, and new market entrants need to build name recognition to compete.

For More Information

The U.S. Commercial Service in Bangkok, Thailand can be contacted via e-mail at: oboonyal@mail.doc.gov ; Phone: 662-205-5090; Fax: 662-255-2915; or visit our website: http://www.buyusa.gov/thailand/en

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